Applicant: Martin E. Newell et

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Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims:

1. (Currently Amended) A method comprising

receiving relocation information indicative of a user-specified change in position of any arbitrary target location on a Bezier shape, the Bezier shape being governed by control points, and

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in response to the relocation information user-specified change in position, determining new positions for canonical locations of the Bezier shape based on predefined behaviors of the canonical locations with respect to the user-specified change in position, the positions of the canonical locations along or across the Bezier shape being predefined to divide the Bezier shape into sections of predetermined proportions such that a particular one of the canonical locations at least sometimes has two different predefined behaviors, with respect to the user-specified change in position, when the user-specified arbitrary target location is, respectively, in different sections of the shape, and

re-determining the control points of the Bezier shape based on the new positions of the canonical locations, the Bezier shape that is governed by the re-determined control points having a path that is not dependent on any user-specified information other than the user-specified change in position.

- 2. (Previously Presented) The method of claim 1, 23, or 24 in which the shape comprises a d-degree Bezier curve, d an integer greater than 1, governed by d+1 control points.
  - 3. (Original) The method of claim 2\in which there are d+1 canonical locations.
- 4. (Previously Presented) The method of claim 1, 23, or 24 further comprising adjusting the control points so that the Bezier shape contains the canonical locations in their new positions.



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5. (Original) The method of claim 1 in which the Bezier shape comprises a curve or a surface.

- 6. (Previously Presented) The method of claim 1, 23, or 24 further comprising rendering the Bezier shape based on the new positions of the d+1 canonical locations.
- 7. (Original) The method of claim 6 in which the target location in its changed position lies on the rendered Bezier shape.
- 8. (Previously Presented) The method of claim 1, 23, or 24 in which the predefined behaviors are expressed in response functions that define the relationship between changes in positions of target locations and changes in positions of canonical locations.
- 9. (Previously Presented) The method of claim 3 in which the Bezier shape comprises a curve, the d+1 canonical locations define d sections in order along the shape from one end to the other end, and the predefined intended behavior comprises the following:

when the target location is in the first section, the one end is relocated, and the other end is constrained to its original location, and

when the target location is in the dth section, the other end is relocated and the one end is constrained to its original location.

- 10. (Previously Presented) The method of claim 1, 23, or 24 in which the Bezier shape comprises a d-degree curve, the one end and the other end comprise end points of the curve, and the target location comprises a point along the curve.
- 11. (Previously Presented) The method of claim 1,\23, or 24 in which the Bezier shape comprises a 3-degree curve and there are four canonical locations.

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12. (Previously Presented) The method of claim 1, 23, or 24 in which the Bezier shape comprises a 2-degree curve and there are three canonical locations.

- 13. (Previously Presented) The method of claim 1, 23, or 24 in which the control points are adjusted using a pre-computed basis coefficient matrix.
- 14. (Previously Presented) The method of claim 1, 23, or 24 in which the Bezier shape comprises a surface and in which the position of the target location is determined by forming a mesh on the surface and searching quadrilaterals of the mesh.
- 15. (Original) The method of claim 11 further comprising processing the relocation information as a series of curve relocations.
- 16. (Currently Amended) A medium storing machine readable instructions arranged to cause a machine to

receive relocation information indicative of a user-specified change in position of any arbitrary target location on a Bezier shape, the Bezier shape being governed by control points, and

in response to the relocation information user-specified change in position, determine new positions for canonical locations of the shape based on predefined behaviors of the canonical locations with respect to the user-specified change in position, the positions of the canonical locations along or across the Bezier shape being predefined to divide the Bezier shape into sections of predetermined proportions such that a particular one of the canonical locations at least sometimes has two different predefined behaviors, with respect to the user-specified change in position, when the user-specified arbitrary target location is, respectively, in different sections of the shape, and

re-determining the control points of the Bezier shape based on the new positions of the canonical locations, the Bezier shape that is governed by the re-determined control points having



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a path that is not dependent on any user-specified information other than the user-specified change in position.

## 17. (Currently Amended) A method comprising

receiving relocation information indicative of a user-specified change in position of any arbitrary target location on a Bezier shape, the Bezier shape being governed by control points,

in response to the relocation information user-specified change in position, determining new positions for canonical locations of the shape based on predefined behaviors of the canonical locations, the positions of the canonical locations along or across the Bezier shape being predefined to divide the Bezier shape into sections of predetermined proportions such that a particular one of the canonical locations at least sometimes has two different predefined behaviors, with respect to the user-specified change in position, when the user-specified arbitrary target location is, respectively, in different sections of the shape, the predefined intended behaviors being expressed in scaled response functions that define the relationship between changes in positions of target locations and changes in positions of canonical locations,

adjusting the control points so that the Bezier shape contains the canonical locations in their new positions, and

rendering the Bezier shape based on the new positions of the canonical locations so that the target location in its changed position lies on the rendered Bezier shape, the Bezier shape having a path that is not dependent on any user-specified information other than the user-specified change in position.

## 18-22. (Cancelled).

## 23. (Currently Amended) A method comprising

receiving relocation information indicative of a user-specified change in position of a target location on a Bezier curve or surface, the target location not being on a boundary of the curve or surface, the Bezier curve or surface being governed by control points, and

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in response to the relocation information user-specified change in position, determining new positions for canonical locations of the curve or surface based on predefined behaviors of the canonical locations with respect to the user-specified change in position, the positions of the canonical locations along or across the Bezier shape being predefined to divide the Bezier shape into sections of predetermined proportions such that a particular one of the canonical locations at least sometimes has two different predefined behaviors, with respect to the user-specified change in position, when the user-specified arbitrary target location is, respectively, in different sections of the shape, and

re-determining the control points of the Bezier shape based on the new positions of the canonical locations, the Bezier shape that is governed by the re-determined control points having a path that is not dependent on any user-specified information other than the user-specified change in position.

## 24. (Currently Amended) A method comprising

enabling a user to drag a target location on a Bezier curve or surface to indicate a new position for the target location, the target location not being on a boundary of the Bezier surface, the Bezier curve or surface being governed by control points, and

in response to the dragging, determining new positions for canonical locations of the curve or surface based on predefined behaviors of the canonical locations with respect to the user-specified change in position, the positions of the canonical locations along or across the Bezier shape being predefined to divide the Bezier shape into sections of predetermined proportions such that a particular one of the canonical locations at least sometimes has two different predefined behaviors, with respect to the user-specified change in position, when the user-specified arbitrary target location is, respectively, in different sections of the shape, and

re-determining the control points of the Bezier shape based on the new positions of the canonical locations, the Bezier shape that is governed by the re-determined control points having a path that is not dependent on any user-specified information other than the user-specified change in position.

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